

# Goddard Space Flight Center's IPP Office Software Intellectual Property Protection & the Software Release Process

October 20, 2009

#### **Dale Clarke**

Software Release Authority Assistant Innovative Partnerships Program Office













## **Course Overview**



- Introduction to Innovative Partnerships Program (IPP)
- Software Release Process
  - Reporting developed software (NTRs)
  - Determining the release level/category
  - Processing requests for software release
- Benefits of Reporting
- Summary













#### **The IPP Office: What We Do**



- Identify technologies to be reported
- Evaluate NASA technologies/needs
- Find licensees/partners
- Negotiate agreements
- Publicize successes
- Seek awards and recognition for GSFC innovators and successes
- Software Release Authority (SRA)
- http://ipp.gsfc.nasa.gov

We make technology transfer happen

















# **Software Release:** *The Big Picture*



1. Software is reported via NTR

Inventor files NTR before public release (distributing, publishing, presenting)

2. Requests for SW are received/processed

3. Release level is

determined

Requested by civil servant Assessment/Review by

- IPP Office (tech transfer)
- Patent Counsel
- **OPC** generates SUA
- Export Control
- IT Security

**SRA** has final approval Inventor handles distribution

SRA=Software Release Authority SUA=Software Usage Agreement













#### **As a Software Inventor/Author...**



- You should document new technology developed
  - Keep notebooks to prove inventorship
  - Remember that software is intellectual property (IP)
  - Report via eNTRe (http://entre.nasa.gov)
- You are responsible for protecting software IP from improper use
  - Always ensure that the appropriate agreement is in place before disseminating
  - When in doubt, contact the SRA Assistant

You should fully understand the implications of releasing your software













# **Step 1:** Report Software Invention



- New Technology Report (NTR)
- Reporting the development of new technologies or innovations (<u>including software</u>) to NASA
- Required of NASA civil servants
- <u>Required</u> in most NASA contracts since 1966
  - Large-business contractors and for-profit organizations working under contracts, grants, or cooperative agreements
  - Small-business contractors, non-profits, colleges, and universities
- NASA Policy Directive 2091.B [Each employee who makes an invention [whether or not the invention was made during working hours, was made with a contribution of Government resources (facilities, equipment, materials, funds, or information, or of the time or services of other Government employees on official duty), or bears a direct relationship to, or is made as a consequence of, the official duties of the employee] is required to submit to the Office of the General Counsel, or to the delegated Center Patent or Intellectual Property Counsel, a disclosure of such invention. Such disclosure should be made through the NASA electronic New

TECHNOLOGY REPORTING (eNTRe) system available at http://invention.nasa.gov/.]













# **When to File a Software NTR**



- As soon as you recognize you have a new innovation (software too)
  - Maybe in middle of project while R&D is ongoing
  - Maybe at end during normal project reporting
- Before public disclosure
- Even software and technologies that you think do not have commercial applications should be reported
  - All are inventoried in TechTracS
  - Let IPP determine potential (maybe a use you haven't thought of)

If you think it might be too early file an NTR, contact the IPP for advice – Better too early than too late













# **Why** to File a Software NTR



- <u>It's required</u> (prior to publishing or presenting)
- Goddard's IPP must determine whether to pursue active tech transfer
- Goddard's patent counsel must determine ownership and file patent application
  - Filing a patent application protects NASA's rights to the invention
    - Failure to file before disclosing (publishing/presenting)
      - Prevents the ability to secure foreign patents
      - Starts 1-year clock ("stat bar") for filing for U.S. patent
- NTR needed for award eligibility













# **Step 2:** Process Release Requests



- SRA assistant receives software release request
  - NTR <u>must</u> have been filed
  - Request must come from a civil servant
- Request must include three forms
  - Export Control Form
  - IT Security (Global Concerns) Form
  - Preliminary Questionnaire













# Step 3: Release Level



- U.S. government purpose release
  - Project release
  - NASA release
  - Interagency release
- General U.S. release only
  - Release of software for U.S. use only
- U.S. and foreign release
  - Software that has special benefits (health, safety, economics)
  - Usual level sought for licensing purposes
- Open source release
  - Newest release category
  - http://opensource.gsfc.nasa.gov/
- General public release
  - Broadest range of release
- For definitions of release levels/categories
  - http://ipp.gsfc.nasa.gov/SRA/categories.htm

















# **Step 3:** Release Level Determined





Initiates assessments

**SRA** Approves strategy and release level/category

#### **Assessments**

IPP/Tech transfer

Commercial potential

**Export Control** Legal compliance

**Patent Counsel** Ownership, release restrictions

IT Security Access/Classify













## **Innovative Partnerships Program Staff**



- Assesses software's commercial potential
  - Establishes extent of current and potential use
  - Identifies potential partners
- Recommends level/type of release
- Determines the technology transfer strategy
  - Assists in establishing IP position
  - Determines appropriate agreement vehicles
  - Develops software dissemination and marketing plan
  - Implements technology transfer strategy
  - Considers Goddard strategic position for future infusion









## **Patent Counsel**



#### Determines ownership of software

- Joint works by NASA employees and contractors generally are jointly owned and assignable
- By law NP, CU, SB own technology for the first 2 years
  - Must decline or elect title within that 2 year period
- LE has an 8 month period to request a waiver and elect title







## **Patent Counsel**



- Determines ownership of software
- Determines suitability of software for patent and/or copyright protection

#### Patents

- Preserve the rights to use the invention
- Enhance the technology's value and generate income (licenses)

#### Copyright

- Not available for software developed solely by federal government employees
- Software may be patentable if integral/necessary for qualifying machine, manufacture, or process
- Underlying concepts may be patentable













#### **Patent Counsel**



- Determines ownership of software
- Determines suitability of software for patent and/or copyright protection
- Identifies release restrictions













# **Export Control**



- Determines export control requirements
  - Complies with Export Control Laws
- Provides guidance and oversight to ensure compliance with applicable laws
  - State Department and Department of Commerce













## **IT Security**



- Performs IT Security Assessment
  - Determines if software is classified
  - Establishes concurrence from CIO
  - Reviews IT security plan
- Ensures the integrity of NASA IT systems
  - Prevent unauthorized access to NASA computing resources













# **Software Release Authority**



- Chief of the IPP Office
- Reviews assessments of software
- Establishes release-level restrictions
  - In accordance with NPR 2210.1A
- Approves strategy and release level of software
  - Commercial potential
  - Infusion positioning
  - Agreement limitations













# **Software Usage Agreement**



- SRA Assistant processes SUA for signature
- Once SUA signed, inventor to disseminate software
- Limits use and access for strategic purposes
  - Competing projects
  - Avoid infringement on authoring contractors
  - Commercial sales
- NTR and release-level steps are required
- Release level determines SUA terms, conditions











### **Other Outcomes: Awards**



- Acceptance of software for release
  - \$1,000 for sole inventor\$500 each for multiple inventors
- Filing of patent application
  - \$1,000 for sole inventor\$500 each for multiple inventors
- Techs approved for publication in NASA Tech Briefs
  - \$350 per author
- Invention and Contributions Board Awards
  - By application (NASA Form 1329)
  - Up to \$100,000

Software also can be submitted for external awards













# Without Proper Technology **Transfer**



- Lost royalties for inventor
- **Lost royalties for the Center**
- Lost external awards
- Lost recognition/credit for inventor, Center, and NASA

For example...









## **Summary**



- Technology Transfer is important for NASA, Goddard, the public, the economy, and you
  - The Innovative Partnerships Program Office makes it happen
- Software is intellectual property and should be reported (http://entre.nasa.gov)
  - It's required
  - Better to file too early than too late
  - Allows Goddard to <u>protect</u> and leverage for new research and revenue opportunities
- Software inventor is <u>key</u> in release process
  - Creator is in best position to assure that software is not released inappropriately













#### **For More Information**



#### Web sites

- Electronic NTR submission: http://entre.nasa.gov
- SRA process: http://ipp.gsfc.nasa.gov/SRA/index.html
- IPP Office: http://ipp.gsfc.nasa.gov

#### Software Release Authority Assistant

- Dale Clarke (IPPO)
- Dale.L.Clarke@nasa.gov
- (301) 286-2691